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Developing new ways of measuring the impact of ambulance service care

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Background

Pre-hospital care in England is provided by ambulance services who deliver a diverse range of services to over 9 million patients a year but there is limited evidence about the effectiveness of this care. Historically ambulance performance has been measured by response times rather than clinical need or effectiveness. Progress on developing more appropriate performance measures is constrained by a lack of information about what happens to patients and their outcome after the pre-hospital component of care. If ambulance service information about patients could be linked to process and outcome data further along the care pathway then relevant measurement tools could be developed that allow a better assessment of the impact of pre-hospital care. The Pre-hospital Outcomes for Evidence Based Evaluation (PhOEBE) project is a 5 year programme of research funded by the UK National Institute of Health Research.

The aim of the programme is to develop new ways of measuring the impact of care provided by the ambulance service to support quality improvement through monitoring, audit and service evaluation.



South East Coast Ambulance Service FT



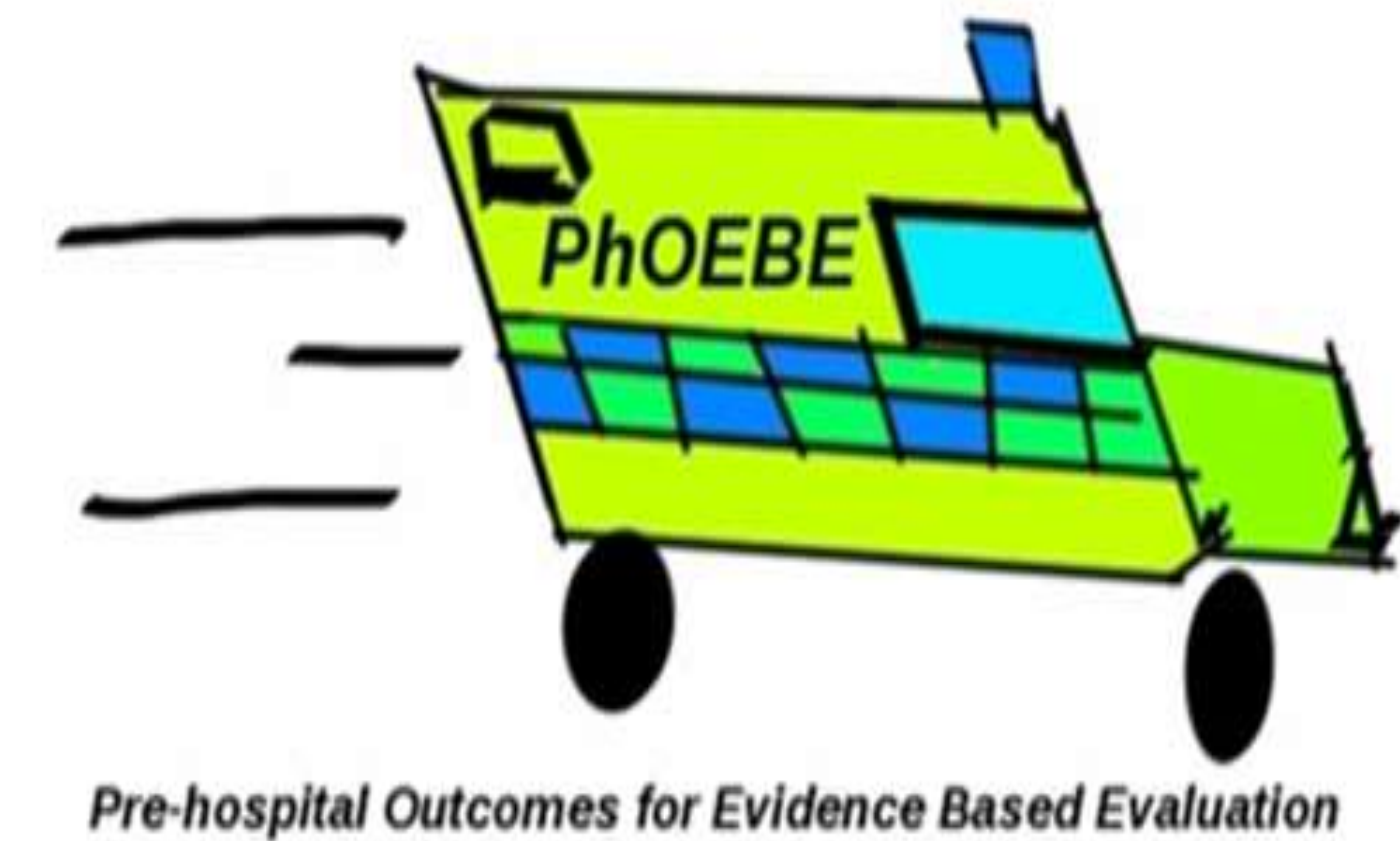
Research Plans

The programme has 4 linked stages;

1. **Synthesis of evidence on outcome measures and identification of measures for further development** - review and assessment of the evidence base on outcome measurement for pre-hospital care and consensus studies to identify measures relevant to patients and NHS staff.
2. **Linking pre-hospital data with other patient data sources** – creating a single dataset that links ambulance service electronic care records with routinely collected Hospital Episode Statistics (HES) and national mortality data.
3. **Development of risk adjustment models for outcomes in patients attended by the ambulance service** – using the linked data to develop risk adjustment tools that will allow patient differences to be taken into account and differences between expected and actual outcomes to be detected. Particular emphasis will be made to include the broad EMS population and not just specific conditions.
4. **Testing the risk adjustment models to assess if they can be used to measure effectiveness and quality** – exploring the practical application of the measures by using them to assess if different ways of providing ambulance service care result in different consequences for patients.

Expected Outputs and impact

- Provide a summary of relevant evidence on pre-hospital care outcome measurement
- Develop a method for linking healthcare information into a format that can be used to support quality improvement, is acceptable to patients and complies with information legislation
- Build population based models for measuring the impact of pre-hospital care that can be used to monitor quality and safety, evaluate new service innovations and support quality improvement
- Facilitate added value by using routine information and NHS infrastructure to operationalise the process and outcome models so that they will be of use across the NHS



PhOEBE consensus event

Progress to date

The programme commenced in June 2011 and ends in May 2016.

- Two systematic reviews of measures used to measure the impact of ambulance service care (one policy literature and one research literature based) completed
- Qualitative study of recent service users to identify aspects of service they value.
- Potential measures identified by these studies were presented at a consensus conference and then further refined in a Delphi study to prioritise and identify measures for further development.
- Linked data is currently being created and the next stage will be the development of risk adjusted predictive models for the final identified measures.



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